

REMARKS

Claims 1-2, 4-7, and 9 are active. Claims 3 and 8 are canceled. Claim 1 is rejected under 35 USC 103 as being unpatentable over Heeger '284 publ. in view of Hagler. Claim 5 is rejected under 35 USC 102 as being anticipated by Heeger et. al. Claims 3 and 4 are rejected under 35 USC 103 as being unpatentable over Heeger in view of Hagler. Claim 6 is rejected under 35 USC 103 as being unpatentable over Heeger in view of Wakita '889. Claims 7 and 9 are rejected under 35 USC 103 as being unpatentable over Wakita '889 in view of Heeger and Hagler.

Minor amendment is made to certain of the claims in the interest of clarity and consistency.

Amended claims 1-2, 4-7 and 9 are submitted for the Examiner's reconsideration.

Amended claim 1 calls for:

A substrate and/or underlayer of an electronic component, which substrate or underlayer is to be coated with an organic functional layer, wherein said substrate or underlayer comprises a biaxially stretched (well-ordered) plastic film such the orderliness of the plastic film enables the application of the functional material thereto in the form of a well-ordered layer to thereby increase the charge carrier mobility of the coated organic functional layer

The term biaxially stretched was included in the subject matter of claim 2 included now in claim 1 and in canceled claims 3 and 8. The Action states that Heeger and Hagler fail to teach biaxially stretching. Bradley is cited as teaching monoaxially stretching. The Action then concludes that one of ordinary skill would know that films

could also be biaxially stretched and thus it would be obvious to provide the device of Heeger and/or Hagler with the plastics film that is biaxially stretched to increase the area covered. This conclusion does not follow from the cited references and does not provide a convincing line of reasoning as to why one of ordinary skill would want to use biaxially stretching for the claimed purposed of increase the charge carrier mobility of the coated organic functional layer. The reasoning that the purpose is to increase the area covered is not relevant. No convincing line of reasoning is given as to why there is an advantage, if any, to increasing the area of coverage or where support for this conclusion is derived from the cited references, which are silent to this aspect as admitted by the Action. Furthermore, this conclusion is derived only from applicants' disclosure which is proscribed and is also mere speculation derived also only from applicants' disclosure and not that of the cited references.

More importantly, the cited references teach away from biaxially stretching the film as claimed. There is a significant difference between biaxially and monoaxially stretching the film. The stretching disclosed in Heeger and Hagler is monoaxial for a specific reason. Their stretching must be monaxial to produce the desired polarized layer. In Heeger, paragraph [0102] "Since the luminescence spectrum is polarized with electric vector along the chain alignment direction, light-emitting diodes can be fabricated which emit polarized light." Hagler is also desirous of using monoaxially stretching for polarization. See page 8652, right hand col. last paragraph, referring to "the electro-optic effect," page 8654, left hand col., section C, referring to polarization

(first paragraph) and p.8656, right hand col. referring to Fig. 7 and MEHPPV-PE for light polarization parallel to the draw axis. See the legend for Figs. 7 and 8, page 8657 referring to light polarization as well. Thus the need for polarization teaches away from biaxially stretching as this would be detrimental to the desired effect. Bradley is of no help as it too refers to uniaxially oriented films, p. 1392, right hand col., last paragraph, last full sentence.

As to Bradley, cited against the former subject matter of claim 2 (and canceled claims 3 and 8), Bradley discloses uniaxially stretching of plastic material, not biaxially. The Action states that one of ordinary skill would know that films could be biaxially stretched as well as axially stretched. While this might be true, there is no motivation to do so, especially in view of Bradley, since none of the cited references disclose or suggest such biaxially stretching.

The Action merely dismisses the disclosures of these references on the basis one of ordinary skill would know about biaxially stretching. This conclusion is improper, misplaced, and bootstraps the uniaxial stretching disclosures for polarization purposes based improperly only on applicants' disclosure, which basis is proscribed, and has no support in any cited reference. Each Action is required by the MPEP to provide a reference for the position taken. The fact that one of ordinary skill might "know" of biaxially stretching misses the point (no reference cited for this point). There is no reference to support even this conclusion and is based only on applicants' disclosure.

There is no motivation to do what is claimed in the cited references. The speculative conclusion of increasing an area provides no convincing line of reasoning as to why one of ordinary skill would want to do so. No reasoning is given for such motivation. Monoaxially stretching results in a layer with a certain stretching in one direction only or a uniaxial stretching direction. This is uniaxial stretching necessary in the references to produce polarized light for light emitting diodes, not otherwise possible. Polarization only takes place with such monoaxial stretching and not biaxial stretching. Thus, it is not obvious from any of these cited references to so biaxially stretch an underlayer to increase the charge carrier mobility of the overlayer, and to which the cited references are silent. Thus, the references cited provide no motivation to do what is claimed. Whether or not what is claimed could be done is irrelevant. Applicants show it can be done, but with a purpose foreign to that of the cited references.

More is required for a showing of prima facie obviousness than a mere conclusion of potential possibilities. Also such a showing is not inherent in the references if what is asserted may or may not be present. See the MPEP 2141.02 as to inherent disclosure and the citation of references on such a basis. That is an insufficient showing. Biaxially stretching, does not provide for polarization, but instead destroys it as no polarization results from such orientations. Thus, it is not a concern of these references to so stretch the plastic material, thus they provide no motivation to do

what is claimed, which references plainly teach away from what is claimed. Teaching away is the antithesis of obviousness.

MPEP2142 expressly requires that there be motivation or suggestion in the art. All limitations must be taught. The teaching or suggestion must be found in the prior art and not in applicants' disclosure. The only source for biaxially stretching for the claimed purposed is in applicants' disclosure and not in the cited art , and thus this rejection is in violation of MPEP 2142 and 2143 and citations therein and is proscribed.

While Bradley discloses axial stretching of plastic materials, there is no hint or suggestion that plastic materials could also be useful for substrates in organic components when biaxially stretched as claimed. The fact that one of ordinary skill might know of biaxially stretching is insufficient, as there must be motivation to do so in the context as claimed. Stretching a material to enlarge it to cover an area as asserted has nothing to do with increasing the charge mobility as claimed. None of the cited references disclose an advantage of a biaxially stretched plastic for organic electronic components. The disclosed monoaxial stretching of plastic layers as disclosed in the cited references for optical polarization for use in LEDs is foreign to amended claim 1.

Wakita teaches away from what is claimed and is cumulative with the other cited references. Polarization is also a primary concern of this reference, see the description of the drawings at col. 3, lines 45 et seq. This reference is also concerned with uniaxially stretching. See col. 5, lines 8-28, a long axis and molecular chains are oriented parallel to PTFE chains (lines 9-12) and pressing a rod of PTFE on a substrate

and sliding it in one direction (lines 27-28). The PTFE oriented film is formed in which the molecular chains are oriented in the direction of sliding. Col. 6, lines 8-9. See the examples also referring to the direction (uniaxial) of the molecular chains and the abstract. This orientation produces polarization, col. 12, lines 1-9, referring to Fig. 9 which is of no help and cumulative with Heeger and Hagler.

The disclosures of these references are silent to and not relevant to what is claimed in amended claim 1. This claim is believed allowable.

Amended claim 5, is rejected as anticipated by Heeger, is a method claim which calls for similar subject matter as in claim 1 and which is believed allowable for similar reasons as claim 1.

The remaining claims 2, 4, 6-7, and 9, depend from the independent claims and are believed allowable at least for these reasons as well as the structures claimed therein not shown or suggested by the cited references. These claims are believed allowable.

Since claims 1-2, 4-7 and 9 have been shown to be in proper form for allowance, such action is respectfully requested.

Enclosed is a request for a one month extension of time and a check in the amount of \$120 for the extension fee.

The Commissioner is authorized to charge any additional fee due for this paper or credit overpayment to deposit account 03-0678.

EXPRESS MAIL CERTIFICATE

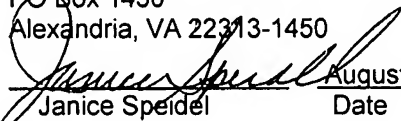
Express Mail Label No. EV 405482314 US
Deposit Date: August 1, 2007

I hereby certify that this paper and the attachments hereto are being deposited today with the U.S. Postal Service "Express Mail Post Office To Addressee" service under 37 CFR 1.10 on the date indicated above addressed to:
MS AMENDMENT

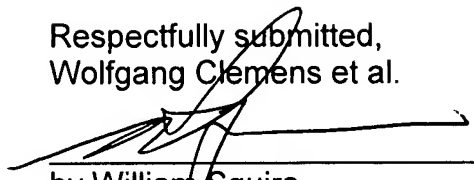
Commissioner For Patents

PO Box 1450

Alexandria, VA 22313-1450


Janice Speidel August 1, 2007
Date

Respectfully submitted,
Wolfgang Clemens et al.


by William Squire

Reg. No. 25,378, Attorney for Applicants

Phone: 973-994-1700

Fax: 973-994-1744

303945v4